Expert Report of Robert E. Trost, PhD ASARCO LLC Chapter 11 Bankruptcy

Case No. 05-21207

Coeur d'Alene Basin, Idaho

June 15, 2007

Prepared by:

Robert E. Trost **USFWS-DMBM**

Pacific Flyway Representative 911 NE 11th Avenue

Portland, OR 97232

A. Introduction

The attached report and the 2004 expert report submitted in the district court case US V. ASARCO, et al. in the US District court in Idaho contain the opinions of Robert E. Trost regarding natural resource damages at the Coeur d'Alene Basin Superfund Site in Idaho. The opinions presented in this report address natural resource damages over the period 1981 forward for tundra swans (*Cygnus columbianus*) and wetland habitats within the trusteeship of the United States. My report presents the total damages attributable to the loss of tundra swans and swan habitat by virtue of mining wastes in the Coeur d'Alene River valley.

B. Expert Qualifications

I am the Pacific Flyway Representative and am employed by the U. S. Fish and Wildlife Service. My present duties include contributing to the population monitoring and assessment of migratory bird populations (primarily migratory game birds) throughout the Pacific Flyway and the North American continent. I also help to develop and implement national strategies for the management of migratory birds with an emphasis on determining appropriate levels of take of migratory game birds, and the determination of waterfowl population status and trends. I have received advanced degrees in Wildlife Ecology, specializing in various aspects of waterfowl biology and management (see attached resume). In addition, I have more than 20-years of work experience with the U.S. Fish and Wildlife Service's Division of Migratory Bird Management, as a waterfowl population ecologist.

C. Summary of Work Performed to Calculate Natural Resource Damages at the Coeur d'Alene Superfund Site.

On August 23, 2004, I submitted an expert report addressing certain aspects of the natural resource damage calculations. Specifically, I addressed the previous and ongoing injuries to tundra swans and tundra swan habitat in the Coeur d'Alene River Basin, and the restoration actions necessary to compensate the United States. I also presented the costs of various restoration actions.

D. Summary of Approach to Calculating Damages

To calculate natural resource damages for tundra swans and migratory bird habitat in the Coeur d'Alene basin, the trustees calculated these natural resource damages using the cost to replace or acquire the equivalent of the injured resources (Trost 2004). Three activities were identified to address these damages: (1) Wetland habitat restoration, (2) Agricultural land conversion, and (3) a conservation easement intended to enhance and preserve tundra swan breeding habitat on the Yukon-Delta National Wildlife Refuge.

Replacement and acquisition costs are calculated for several different time periods: past damages, damages from the present until the start of EPA's remedy, damages during the 30-year period over which EPA's remedy is anticipated, and residual damages after completion of EPA's remedy. The approach used by the trustees in this case is consistent with that used by trustees and responsible parties at several other sites in the U.S.

E. Summary of Damages to Tundra Swan and habitat in the Coeur d'Alene Basin

The 2004 report presents damages to injured tundra swans using a mixture of on-site restoration and resource equivalency approaches. Those damages equaled \$183.5 million in 2004 dollars.

My opinions regarding these calaculations have not changed since that report was issued.

F. Anticipated Exhibits to be Used at Trial

I anticipate that some or all of the following exhibits may be used at trial to support my testimony:

- This expert report, including any figures or tables, as well as any attachments thereto
- The Report of Injury Assessment and Injury Determination (LeJeune et al., 2000), including any figures or tables contained therein.
- Any of the expert reports prepared as part of the Coeur d'Alene NRDA, including any figures or tables contained therein
- Any of the trial exhibits used in that case
- Illustrative maps of the Coeur d'Alene Superfund Site and those locations included in my calculations of damages
- Illustratives demonstrating the habitat and resource equivalency methods
- ▶ Photographs of the site
- Photographs and/or illustrative drawings of natural resources of the site
- Illustratives describing the calculations of debits or credits in equivalency models.

▶ Charts summarizing natural resource damages calculated for the site

G. Other Documents Relied Upon

Documents consulted in the process of conducting the work described in this expert report include, but may not be limited to, the references cited above, other citations identified in the attachments to this report, as well as various trial exhibits.

H. Literature Cited

Trost, R. E, 2004. Tundra swan (*Cygnus columbianus*) Injury Assessment: Lower Coeur d'Alene River basin. Expert Report of August 23, 2004.

ATTACHMENTS:

Trost, R. E, 2004. Tundra swan (Cygnus columbianus) Injury Assessment: Lower
 Coeur d'Alene River basin. Expert Report of August 23, 2004.